ABSTRACT OF THE DISCLOSURE
<u>METHOD AND SYSTEM FOR ASSIGNING NETWORK ADDRESSES</u>

A method and system for using an Ethernet ring topology to connect Ethernet Computer Enclosure Services (CES) devices. The system contains two physical Ethernet tailstock connectors for every CES device on the Ethernet ring for point-to-point connection between Ethernet Network Interface Cards (NIC's) connected to each CES device. A master CES device initiates all network traffic, and the master CES device assigns IP addresses for all CES devices, including both the master CES device as well as slave CES devices on the Ethernet ring. After IP addresses are assigned to all CES devices, a network command is issued by the master CES device on a regular basis to poll the slave CES devices for status and failure information. If a break occurs anywhere in the ring, the master CES device isolates and identifies the break and reverses the direction of the polling signal to access each slave CES device.